ABSTRACT

The technology is disclosed to attain the prompt
processing and reduction of signaling volume in network
attachment detection for IPv6 wireless access networks.
According to this technology, a mobile node reports the
identifier of a new wireless access point to its on-link
access routers (ARs) and the ARs disseminate the identifiers
of all the reported access points (APID List) to MNs. With
the identifiers information, the MN is able to speculate it
remains in the same subnet or moved back to a previously
visited subnet, where its current or previous address
configuration can be reused respectively. The speculation
is ascertained by parallelly performing reachability test
and duplicate address detection, if necessary. The
reachability test is done in a unicast manner so as to conserve
wireless link bandwidth.